

## SECTION 2: DEVELOP AND SCREEN STRATEGIES

The project team used information from the technical reports and the Statement of Goals to develop an extensive list of actions that could be implemented within the Route 22 Corridor. The potential actions, both long- and short-term, are intended to address the transportation issues through 2020, the forecast period of the project. The strategies were developed in sufficient detail to allow for a basic technical, environmental, and financial evaluation.

The project goals and objectives were used as the initial screen to assess the relative effectiveness of the strategies. The concepts were also presented and discussed at the November public meeting to gauge public interest and support for the strategies.

The list of potential strategies ranged from changes in zoning regulations to expanding local transit service. The consultants worked with the representatives of the local municipalities to determine which strategies and tools were already in use somewhere in the corridor. This information is summarized in **Table 1, Matrix of Potential Strategies**. The matrix also indicates which of the project goals(s) presented in Section 1 the strategy addresses.

THIS PAGE INTENTIONALLY LEFT BLANK.

Table 1: Matrix of Potential Strategies

	GOALS MET	Identified Within																
		Pawling			Pawling Village		Dover			Amenia			North East			Millerton Village		
		Zoning	Master Plan	Subdivision Regulations	Zoning	Comprehensive Plan	Zoning	Master Plan	Subdivision Regulations	Zoning	Master Plan	Subdivision Regulations	Zoning	Master Plan	Subdivision Regulations	Zoning	Master Plan	Subdivision Regulations
Potential Tools																		
Growth in Defined Areas	1,2,4		X			X		X			X							
Define priority growth area													X				X	
Mixed-use zoning		X			X	X	X	X						X			X	X
Density bonus/encouragement			X				X	X					X				X	
Infrastructure provision			X			X	X	X			X		X	X			X	
Open Space Preservation	1,2,4	X	O			X					X			X			X	
Designate greenbelts		X						X										
Cluster bylaw zoning			X			X	X	X			X		X				X	
Overlay district zoning							X											X
Right to farm legislation								X			X			O				X
Farmland tax relief (requires enabling legislation)								X						X				X
Fee-simple acquisition																		
Purchase development rights														O			O	
Lease development rights														O			O	
Transfer development rights			O								X			X			X	
Land acquisition through Land Trust						X								X			X	
Agricultural use zoning																		
Transportation Systems Management																		
Cross-section guidelines	2,3,4,5				X	X					X			X			X	
Rural																		
Highway commercial																		
Village/hamlet							X											
Future connections/grid system				X		X												X
Capacity improvements	4,5,7						X											
Management Tools																		
Design guidelines																		
Site plan review	2,3,4,5				X			X					X					
Subdivision regulations	2,3,4,5			X				X	X						X			X
Harlem Valley Transportation Plan	4,7		X				X	X	X			X						X
Transportation Development District (TDD)	4,5,6	X											X					
Developer paid professional services	4,5,7	X				X	X			X								
Regional impact assessment	2,4,5,6,7	X					X			X								
Performance evaluation	4,7		O		X	X	X	X	X								X	X
Access Management	4,5,7																	
Medians (included in cross-sections)																		
Turn restrictions/lanes (included in capacity improvements)																		
Shared driveways			X	X				X	X									X
Parking lot connections/shared parking		X			X	X	X	X					X					X
Rear/side parking						X	X	X	X							X		
Corner sight distance					X		X	X							X			X
Landscape commercial space		X						X			X							
Increase driveway setback from intersection		X									X			X			X	
Driveway spacing/setback					X					X		X		X		X		X
Defined/limited number of driveways								X		X	X		X			X		X

Table 1: Matrix of Potential Strategies

	GOALS MET	Identified Within																
		Pawling			Pawling Village		Dover			Amenia			North East			Millerton Village		
		Zoning	Master Plan	Subdivision Regulations	Zoning	Comprehensive Plan	Zoning	Master Plan	Subdivision Regulations	Zoning	Master Plan	Subdivision Regulations	Zoning	Master Plan	Subdivision Regulations	Zoning	Master Plan	Subdivision Regulations
<b>Potential Tools</b>																		
Secondary access (feeder) roads (included in Harlem Valley Transportation Plan)		X	X	X		X			X				X					X
Climbing lanes																		
Local access permit program	4,6,7	X					X			X								
<b>Signage Guidelines/Way-finding</b>	11																	
Design guidelines		X						X						X		X	X	
Village/hamlet						X												
Gateways						X												
Harlem Valley Signage Plan																		
Identity																		
Way-finding/tourism																		
NYS DOT cooperation																		
<b>Pedestrian/Bicycle Safety/Mobility</b>	3,8,10	X		X				X										
Focus on growth areas/schools/transit						X		X	X						X			X
Village traffic calming																		
<b>Safety</b>	3,5,8							X						X			X	
Roadway/intersection improvements (included in Harlem Valley Transportation Plan)																		
Education programs																		
Signs—events/safety																		
School safety program																		
<b>Aesthetics</b>	2																	
Maintenance programs																		
Scenic byway/roads program			O			X		X										
Scenic overlooks																		
<b>Public Transportation</b>	9																	
North-south LOOP service																		
Subsidized taxi service											X							
Dial-a-ride bus service								X			X							
Convenience/tourist retail																		
<b>Travel Demand Management</b>	4																	
Park-&-ride lots																		
Carpool matches								X										
Commuter shuttles								X										
Flexible hours																		

The following municipal documents were used in preparing **Table 1**. The relevant adoption dates are indicated.

**Town of Pawling**

Zoning - 1978

Master Plan - 1990

Subdivision Regulations - 1988

**Village of Pawling**

Zoning - 1995

Comprehensive Plan - 1994

Subdivision Regulations - Unknown

**Town of Dover**

Zoning - 1999

Master Plan - 1993

Subdivision Regulations - 1986

**Town of Amenia**

Zoning - 1986

Master Plan - 1991

Subdivision Regulations - 1999

**Town of North East**

Zoning - 1977

Master Plan - 1999

Subdivision Regulations - 1973

**Village of Millerton**

Zoning - 1977

Master Plan - 1999

Subdivision Regulations - 1987

It is important to note that many of the communities in the corridor implement some of the tools through the Planning Board and Zoning Board of Appeals processes or through other local laws or review processes (see **Appendix C**). One of the main recommendations of the Corridor Management Plan is that the use of these tools be

formalized in appropriate Town documents to provide consistency among developments over time as board members change.

## PRELIMINARY SCREENING

The initial screening of the potential strategies included an assessment of the project objectives, probable cost, technical requirements, and potential environmental impacts. A general description of each of these factors is outlined below.

- **Project Objectives**

This category provides a general description of the potential strategy and the objectives that it is attempting to achieve.

- **Probable Cost**

Planning level estimates of probable cost were developed within three general categories: Low, <\$100,000; Moderate, \$100,000-499,000; High, >\$500,000.

- **Estimated Technical Requirements**

This category addresses the technical requirements of proposed alternatives. For example, is the alternative a fairly simple traffic signal installation that has been designed and installed on a fairly regular basis throughout the region? Or does the alternative require new technology that has not been used in the region and that would require outside expertise and a learning curve for the local agencies involved?

- **Potential Environmental Impacts**

This category identifies areas of potential environmental concern such as Traffic, Safety, Social, Land Use, and Environmental (air quality, noise, wildlife).

After the initial screening was completed, all actions that did not address any of the project goals, objectives, or needs were eliminated. Actions that were determined to

have excessive cost or minimal benefit, as well as strategies with extremely difficult technical requirements or major negative impacts, were also eliminated. Finally, those actions that received negative comments or little interest from the participants at the public meetings were also eliminated.

The remaining strategies were then grouped into seven general categories to be progressed into the second stage of the evaluation, which is described in **Section 3**. Detailed descriptions of the strategies that were progressed to the next step are provided in **Appendix A**. Documentation of the eliminated actions and the reasons for elimination is provided in **Appendix B**.

## SUMMARY OF PROGRESSED STRATEGIES

The remaining strategies were grouped into seven general categories to assist with the next phase of the evaluation:

- 1.0 Growth in Defined Areas
- 2.0 Open Space Preservation
- 3.0 Harlem Valley Transportation Plan
- 4.0 Design Guidelines
- 5.0 Access Management
- 6.0 Signage
- 7.0 Pedestrian/Bicycle Safety and Mobility

A summary of each of the strategies that was progressed is provided below.

### 1.0 Growth In Defined Areas

- 1.1 Define Priority Growth Area.** Designate a 0.5-mile radius priority growth area. A growth boundary is an officially adopted line on a map showing the outermost limit of “urban” development within the planning horizon.

- 1.1.1 Mixed-use Zoning.** Modify zoning to provide a mixed-use category within growth areas to permit both commercial and residential (including multi-family) uses.
- 1.1.2 Density Bonus.** Provide a density bonus provision in the zoning code to encourage development within the defined growth areas.
- 1.1.3 Infrastructure Provision.** Provide the necessary infrastructure (sewer and water) in growth areas to support higher density levels: Adequate infrastructure is needed within growth areas to support a higher level of development.

## 2.0 Open Space Preservation

- 2.1 Designate Greenbelts.** Greenbelts are an officially designated area for the preservation of open space around priority growth areas. The preservation of open space in these areas is accomplished through land acquisition and zoning modifications.
  - 2.1.1 Cluster Bylaw/Overlay District.** Modify zoning to provide an Open Space Preservation Overlay Zone, which requires cluster development.
  - 2.1.2 Lease Development Rights.** Municipalities lease development rights from farmers in exchange for a reduction in property tax assessment during a long-term lease period (20 years or more).
  - 2.1.3 Transfer Development Rights.** Municipalities work with developers and land owners to transfer development rights from designated greenbelts to designated growth areas.
  - 2.1.4 Land Acquisition through Existing Land Trusts.** Municipalities should proceed with local land acquisition through existing land trusts, including the Dutchess Land Conservancy and the Nature Conservancy.



### 3.0 Harlem Valley Transportation Plan

The Harlem Valley Transportation Plan is a document that could be adopted by the local legislation in the participating communities. This plan depicts the rights-of-way for proposed roads and modification to existing roads.

**3.1 Cross-section Guidelines.** As Route 22 improvement projects are designed and constructed, different roadway cross-section guidelines should be followed, depending on the adjacent land use and the character of the area. The cross-section guidelines were developed to adequately accommodate the anticipated modes of transportation—vehicular, bicycle, and pedestrian—in different sections of the corridor. Three general categories have been identified for the Route 22 Corridor: Rural, Highway Commercial, and Village/Hamlet, with two sub-categories, divided and undivided, under Highway Commercial.

**3.1.1 Rural.** The rural cross section should consist of travel lanes that are wide enough to accommodate the future traffic volumes expected for Route 22 and be in compliance with NYSDOT standards. The shoulders should also be wide enough to accommodate slow-moving vehicles, broken-down vehicles, and room to go around vehicles making left turns.

**3.1.2 Highway Commercial.**

**3.1.2.1 Divided.** The divided highway commercial cross section is a curbed cross section that limits the driveway access onto Route 22 and the divided median limits left turn movements to designated intersections. This section provides adequate travel lane width for future traffic volumes and also provides room for a shoulder or bicycle lane and includes sidewalks where pedestrian activity warrants.

**3.1.2.2 Undivided.** The undivided highway commercial cross section is similar to the divided cross section in

that it limits the driveway access onto Route 22 with curbing, provides adequate travel lane width for future traffic volumes, provides room for a shoulder or bicycle lane, and includes sidewalks for pedestrians. Left turn lanes should be provided at intersections where warranted.

**3.1.3 Village/Hamlet.** The village/hamlet cross section is the same as the undivided cross section except for providing additional space between the travel lane and the curb to allow for vehicles making stops to drop off or pick up passengers and/or packages. This space should also allow adequate room for pedestrians and bicyclists. Parking can be provided adjacent to the travel lane for streets off of Route 22.

## **3.2 Roadway Connections.**

**3.2.1 Provide Secondary Access Roads.** Secondary access/service or feeder roads, typically located parallel to and alongside the through route, remove turning traffic from the through route (Route 22) while maintaining access to businesses.

**3.2.2 Encourage grid system.** An effort should be made to encourage a grid pattern of short, straight streets that provide alternative travel patterns.

**3.3 Capacity Improvements.** Capacity improvements can be as simple as modifying the signal timing or phasing at a signalized intersection, or they can be as involved as adding turn lanes or additional through lanes. Capacity improvements facilitate better traffic flow and can increase safety.

**3.4 Safety Improvements.** Safety improvements often involve improving sight distance deficiencies or making it safer to turn onto or off of Route 22. The lack of adequate sight distance at several intersections along Route 22 due to existing trees, brush or rock outcroppings for

example, make it difficult to see when it is safe to turn onto Route 22 from a side road or driveway.

## 4.0 Design Guidelines

Design guidelines recognize that current development trends do not necessarily give people what they want. Guidelines regulate development for consistency with the vision of the community.<sup>1</sup>

Design guidelines typically cover the layout and design of streets and the relationships of buildings, driveways, landscaping, and parking areas to streets. These guidelines can be used in conjunction with architectural standards and signage guidelines. Guidelines provide consistency from development to development and over time as membership in a planning board changes. Separate guidelines should be developed to address the varying needs of highway commercial areas, residential subdivisions, and mixed-use villages and hamlets.

## 5.0 Access Management

**5.1 Incorporate Access Management Tools into Site Plan Review and Sub-division Regulations.** Access Management is a tool that addresses the conflict between through traffic and traffic destined to developments abutting a roadway.

**5.1.1 Shared Driveways.** Shared driveways serve two or more abutting properties to reduce the total number of driveways, provide greater driveway spacing and improve the management of entering and exiting traffic.

---

<sup>1</sup> Dutchess County Department of Planning and Development. *Hamlet Design Guidelines*. Albany, New York: New York Planning Federation, October 1994.

- 5.1.2 Shared Parking/Parking Lot Connections.** Internal parking lot connections allow vehicles to move from one development to another without having to enter the main roadway.
- 5.1.3 Rear/Side Parking.** Parking provided to the side and rear of buildings provides significant transportation and visual benefits.
- 5.1.4 Corner Sight Distance.** Adequate sight distance should be provided on all intersection approaches, to reduce the potential for accidents.
- 5.1.5 Increase Driveway Setback from Intersection.** To reduce conflict points at major intersections, driveway setbacks should be increased to between 200 to 250 feet for full access of all movements.
- 5.2 Define/Limit Number of Driveways through a Limited Access Overlay District.** The intent of this tool is to maintain less than 10 uncontrolled access points per side per mile in rural sections between growth areas or a driveway spacing of approximately 550 feet.

## 6.0 Signage

- 6.1 Signage Design Guidelines.** Signage guidelines are enacted to improve the visual appearance of communities. The type, size, and location of a sign can be determined by a zoning ordinance, but the material, colors, and design are generally controlled by guidelines. This strategy would provide guidelines for specific parts of the community such as villages and hamlets versus highway commercial districts.
- 6.2 Harlem Valley Signage Plan.** This tool would establish guidelines for Route 22 in the Harlem Valley that are more structured and consistent with the character of the region. The Harlem Valley guidelines would specify construction materials, design, color combinations, and text for authorized signs. This strategy differs from the guidelines

presented above in that it is specific to Route 22 and would be developed to comply with NYSDOT regulations.

## 7.0 Pedestrian/Bicycle Safety and Mobility

- 7.1 Sidewalks in Growth Areas.** Sidewalks are an important factor in enhancing safety and encouraging walking as a primary mode of transportation and should be provided on all streets within the priority growth areas. The provision of appropriate pedestrian facilities (e.g., sidewalks and crosswalks) should also be encouraged in other areas along the corridor where there is existing pedestrian activity or where those types of facilities have the potential of reducing auto trips.
- 7.2 Village Traffic Calming.** Traffic calming is a combination of physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. Traffic calming is used to reduce vehicle speed, mitigate cut-through traffic, increase safety and improve aesthetics.
- 7.3 Pedestrian/Bicycle Connections in Key Locations.** Pedestrian and bicycle facilities offer an alternative for those who are unable or choose not to drive a vehicle, while reducing traffic volumes and associated congestion. The most significant pedestrian/bicycle facility in the region is the Harlem Valley Rail Trail (HVRT). Efforts to connect the HVRT to adjacent population centers (e.g., the hamlet of Wassaic) should be pursued where possible. The following locations, although not inclusive of all areas of concern, were the focus of this study.
- 7.3.1 Dover Plains to Tally Ho Mobile Home Park, Dover.**
  - 7.3.2 Amenia hamlet north to Maplebrook School, Amenia.**
  - 7.3.3 Route 22 at CR 67 (Quaker Hill Road) to Pawling Metro-North RR Station via Main Street, Pawling (bicycle only).**

**7.3.4 CR 4 (Poplar Hill Road) to Tenmile River Metro-North RR Station via CR 5 (Sinpatch Road), Amenia (bicycle only).**

**7.3.5 Route 343 to HVRT along Mechanic Street, Amenia (bicycle only).**